

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Presented) ~~Variable~~ A variable focus lens package ~~(1, 2, 3)~~, comprising:

[[-]] a body ~~(10)~~, which is provided with a through-hole ~~(11)~~ for providing a light path through the body ~~(10)~~, wherein at least a surface layer of the body ~~(10)~~ comprises an electrically conducting material;

[[-]] covers ~~(30, 70)~~ for closing off the through-hole ~~(10)~~, which are optically transparent in the light path;

[[-]] an electrically insulating fluid ~~(87)~~ and an electrically conducting fluid ~~(86)~~, which are contained by a fluid chamber ~~(85)~~ enclosed by the covers ~~(30, 70)~~ and an inner surface ~~(15)~~ of the through-hole ~~(11)~~ of the body ~~(10)~~, which are non-miscible, and which are in contact over a meniscus ~~(88)~~, wherein a

shape of the meniscus ~~(88)~~ is variable under the application of a voltage between the electrically conducting surface of the body ~~(10)~~ and the electrically conducting fluid ~~(86)~~;

[[~~-~~]] an electrically insulating layer covering at least ~~the~~ a portion of the surface of the body ~~(10)~~ contacting the electrically conducting fluid ~~(86)~~;

[[~~-~~]] sealing means ~~(50, 60)~~ for sealing the fluid chamber ~~(85)~~; and

[[~~-~~]] clamping means ~~(20)~~ for fixing the body ~~(10)~~, the covers ~~(30, 70)~~ and the sealing means ~~(50, 60)~~ with respect to each other under the exertion of clamping forces, the clamping means contact at least one of the electrically conducting surface of the body and the electrically conducting fluid.

Claim 2 (Canceled)

3. (Currently Presented) ~~Variable~~ The variable focus lens package ~~(1, 2, 3)~~ according to ~~claim 2~~ claim 1, wherein the clamping means comprise at least one clamping unit ~~(20)~~ having a ring ~~(21)~~ and clamping arms ~~(22)~~ extending from an outer

circumference of said ring ~~(21)~~.

4. (Currently Presented) The variable focus lens package ~~(1, 2, 3)~~ according to claim 1, wherein at least one of the covers ~~(30, 70)~~ is capable of functioning as a lens.

5. (Currently Presented) ~~Variable focus lens package (1, 2, 3)~~ according to claim 4, wherein A variable focus lens package comprising:

a body which is provided with a through-hole for providing a light path through the body, wherein at least a surface layer of the body comprises an electrically conducting material;

covers for closing off the through-hole, which are optically transparent in the light path;

an electrically insulating fluid and an electrically conducting fluid, which are contained by a fluid chamber enclosed by the covers and an inner surface of the through-hole of the body, which are non-miscible, and which are in contact over a meniscus, wherein a shape of the meniscus is variable under the application of a voltage between the electrically conducting surface of the

body and the electrically conducting fluid;

an electrically insulating layer covering at least a portion
of the surface of the body contacting the electrically conducting
fluid;

sealing means for sealing the fluid chamber; and

clamping means for fixing the body, the covers and the sealing
means with respect to each other under the exertion of clamping
forces;

wherein at least one cover of the covers is capable of
functioning as a lens, the at least one cover (30, 70) capable of
functioning as a lens comprises comprising a glass base plate (32,
74) and a plastic lens body (31, 75) attached to the base plate
(32, 74).

6. (Currently Presented) ~~Variable~~ The variable focus lens
package ~~(1, 2, 3)~~ according to claim 4, comprising aligning means
~~(33, 71; 38, 77)~~ for aligning the cover ~~(30, 70)~~ capable of
functioning as a lens with respect to the meniscus ~~(88)~~ between the
electrically insulating fluid ~~(87)~~ and the electrically conducting
fluid ~~(86)~~.

7. (Currently Presented) ~~Variable focus lens package (2, 3)~~
~~according to claim 6, A variable focus lens package comprising:~~
a body which is provided with a through-hole for providing a
light path through the body, wherein at least a surface layer of
the body comprises an electrically conducting material;
covers for closing off the through-hole, which are optically
transparent in the light path;
an electrically insulating fluid and an electrically
conducting fluid, which are contained by a fluid chamber enclosed
by the covers and an inner surface of the through-hole of the body,
which are non-miscible, and which are in contact over a meniscus,
wherein a shape of the meniscus is variable under the application
of a voltage between the electrically conducting surface of the
body and the electrically conducting fluid;
an electrically insulating layer covering at least a portion
of the surface of the body contacting the electrically conducting
fluid;
sealing means for sealing the fluid chamber;
clamping means for fixing the body, the covers and the sealing

means with respect to each other under the exertion of clamping forces; and

aligning means for aligning at least one of the covers with respect to the meniscus between the electrically insulating fluid and the electrically conducting fluid;

wherein the aligning means comprise an annular positioning member ~~(38, 77)~~ provided on the cover ~~(30, 70)~~ capable of functioning as a lens.

8. (Currently Presented) ~~Variable~~ The variable focus lens package ~~(1, 2, 3)~~ according to claim 1, wherein the sealing means comprise at least one sealing ring ~~(50, 60)~~, ~~which preferably comprises including~~ rubber.

9. (Currently Presented) ~~Variable~~ The variable focus lens package ~~(1, 2, 3)~~ according to claim 1, further comprising at least one expansion member ~~(60, 65)~~ which is partially flexible and which is part of a circumscription of the fluid chamber ~~(85)~~, wherein said expansion member ~~(60, 65)~~ is capable of compensating for variations of the volume of the fluids ~~(86, 87)~~ by keeping a

pressure prevailing inside the fluid chamber (85)—at a substantially fixed level.

10. (Currently Presented) ~~Variable focus lens package (2, 3)~~
~~according to claim 9, A variable focus lens package comprising:~~
a body which is provided with a through-hole for providing a
light path through the body, wherein at least a surface layer of
the body comprises an electrically conducting material;
covers for closing off the through-hole, which are optically
transparent in the light path;
an electrically insulating fluid and an electrically
conducting fluid, which are contained by a fluid chamber enclosed
by the covers and an inner surface of the through-hole of the body,
which are non-miscible, and which are in contact over a meniscus,
wherein a shape of the meniscus is variable under the application
of a voltage between the electrically conducting surface of the
body and the electrically conducting fluid;
an electrically insulating layer covering at least a portion
of the surface of the body contacting the electrically conducting
fluid;

sealing means for sealing the fluid chamber;
clamping means for fixing the body, the covers and the sealing
means with respect to each other under the exertion of clamping
forces; and
at least one expansion member which is partially flexible and
which is part of a circumscription of the fluid chamber, wherein
said expansion member is capable of compensating for variations of
volume of the fluids by keeping a pressure prevailing inside the
fluid chamber at a substantially fixed level;
wherein the expansion member comprises the sealing means—(60).

11. (Currently Presented) ~~Variable~~ A variable focus lens
package—(1, 2, 3), comprising:

[[-]] a body—(10), which is provided with a through-hole (11)
for providing a light path through the body—(10), wherein at least
a surface layer of the body (10)—comprises an electrically
conducting material;

[[-]] covers (30, 70)—for closing off the through-hole—(10),
which are optically transparent in the light path;

[[-]] an electrically insulating fluid (87)—and an

electrically conducting fluid ~~(86)~~, which are contained by a fluid chamber ~~(85)~~ enclosed by the covers ~~(30, 70)~~ and an inner surface ~~(15)~~ of the through-hole ~~(11)~~ of the body ~~(10)~~, which are non-miscible, and which are in contact over a meniscus ~~(88)~~, wherein a shape of the meniscus ~~(88)~~ is variable under the application of a voltage between the electrically conducting surface of the body ~~(10)~~ and the electrically conducting fluid ~~(86)~~;

[[-]] an electrically insulating layer covering at least the a portion of the surface of the body ~~(10)~~ contacting the electrically conducting fluid ~~(86)~~; and

[[-]] sealing means ~~(50, 60)~~ for sealing the fluid chamber ~~(85)~~;

wherein at least one of the covers ~~(30, 70)~~ is capable of functioning as a lens; and

wherein the cover capable of functioning as the lens comprises a glass base plate and a plastic lens body attached to the base plate.

Claim 12 (Canceled)

13. (Currently Presented) ~~Variable~~ A variable focus lens

package ~~(4)~~, comprising:

[[~~-~~]] a body ~~(10)~~, which is provided with a through-hole ~~(11)~~ for providing a light path through the body ~~(10)~~, wherein at least a surface layer of the body ~~(10)~~ comprises an electrically conducting material;

[[~~-~~]] covers ~~(30, 70)~~ for closing off the through-hole ~~(10)~~, which are optically transparent in the light path;

[[~~-~~]] an electrically insulating fluid ~~(87)~~ and an electrically conducting fluid ~~(86)~~, which are contained by a fluid chamber ~~(85)~~ enclosed by the covers ~~(30, 70)~~ and an inner surface ~~(15)~~ of the through-hole ~~(11)~~ of the body ~~(10)~~, which are non-miscible, and which are in contact over a meniscus ~~(88)~~, wherein a shape of the meniscus ~~(88)~~ is variable under the application of a voltage between the electrically conducting surface of the body ~~(10)~~ and the electrically conducting fluid ~~(86)~~;

[[~~-~~]] an electrically insulating layer covering at least ~~the~~ a portion of the surface of the body ~~(10)~~ contacting the electrically conducting fluid ~~(86)~~;

[[~~-~~]] sealing means ~~(50, 60)~~ for sealing the fluid chamber

(85);

[[~~-~~]] ~~two~~ an electrical connectors connector for applying a voltage between the electrical connector and the body so that a further electrical connector is not necessary, wherein at least a portion of the electrical ~~connectors~~ connectors is arranged at the outside of the variable focus lens package ~~(4)~~, wherein ~~one~~ the electrical connector is in contact with the electrically conducting fluid ~~(86)~~, and wherein the body ~~(10)~~ serves as another electrical connector.

14. (Currently Presented) ~~Camera~~ A camera comprising a camera module ~~(90)~~ and a variable focus lens package ~~(1, 2, 3, 4)~~ according to claim 1.

15. (Currently Presented) ~~Hand-held~~ A hand-held apparatus comprising a camera according to claim 14, and further comprising input means, information processing means and display means.

16. (New) A variable focus lens package comprising:
a body which is provided with a through-hole for providing a

light path through the body, wherein at least a surface layer of the body comprises an electrically conducting material;

covers for closing off the through-hole, which are optically transparent in the light path;

an electrically insulating fluid and an electrically conducting fluid, which are contained by a fluid chamber enclosed by the covers and an inner surface of the through-hole of the body, which are non-miscible, and which are in contact over a meniscus, wherein a shape of the meniscus is variable under the application of a voltage between the electrically conducting surface of the body and the electrically conducting fluid;

an electrically insulating layer covering at least a portion of the surface of the body contacting the electrically conducting fluid;

sealing rings configured to seal the fluid chamber; and

a clamping unit configured to fix the body, the covers and the sealing means with respect to each other under the exertion of clamping forces by clamping arms;

wherein the clamping unit contacts at least one of the electrically conducting surface of the body and the electrically

conducting fluid.

17. (New) A variable focus lens package comprising:

a body which is provided with a through-hole for providing a light path through the body, wherein at least a surface layer of the body comprises an electrically conducting material;

covers for closing off the through-hole, which are optically transparent in the light path;

an electrically insulating fluid and an electrically conducting fluid, which are contained by a fluid chamber enclosed by the covers and an inner surface of the through-hole of the body, which are non-miscible, and which are in contact over a meniscus, wherein a shape of the meniscus is variable under the application of a voltage between the electrically conducting surface of the body and the electrically conducting fluid;

an electrically insulating layer covering at least a portion of the surface of the body contacting the electrically conducting fluid;

sealing rings configured to seal the fluid chamber; and

a clamping unit configured to fix the body, the covers and the

sealing means with respect to each other under the exertion of clamping forces by clamping arms;

wherein at least one cover of the covers is configured to function as a lens, the at least one cover comprising a glass base plate and a plastic lens body attached to the base plate.

18.(New) A variable focus lens package comprising:

a body which is provided with a through-hole for providing a light path through the body, wherein at least a surface layer of the body comprises an electrically conducting material;

covers for closing off the through-hole, which are optically transparent in the light path;

an electrically insulating fluid and an electrically conducting fluid, which are contained by a fluid chamber enclosed by the covers and an inner surface of the through-hole of the body, which are non-miscible, and which are in contact over a meniscus, wherein a shape of the meniscus is variable under the application of a voltage between the electrically conducting surface of the body and the electrically conducting fluid;

an electrically insulating layer covering at least a portion

of the surface of the body contacting the electrically conducting fluid;

sealing rings configured to seal the fluid chamber;

a clamping unit configured to fix the body, the covers and the sealing means with respect to each other under the exertion of clamping forces by clamping arms; and

annular positioning member provided on at least one of the covers for aligning the at least one of the covers with respect to the meniscus between the electrically insulating fluid and the electrically conducting fluid;

wherein the annular positioning member is configured to function as a lens.